



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,773	10/11/2000	Timothy L. Racette	99556466	5174
7590	03/10/2004		EXAMINER	
THOMAS R. STIEBEL, JR. MAYER, BROWN & PLATT P.O. Box 2828 Chicago, IL 60690-2828			WINTER, GENTLE E	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/686,773	RACETTE ET AL.
	Examiner	Art Unit
	Gentle E. Winter	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.

- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.

- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 04 December 2003.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-108 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-108 are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-49, 74-105, 59-67, and 71-73 drawn to a method, classified in class 134, subclass 22.14.
  - II. Claims 50-56, 106, 59-67, and 71-73 drawn to a method, classified in class 134, subclass 22.16.
  - III. Claims 57-58, 108, 59-67, and 71-73 drawn to a method, classified in class 134, subclass 22.13.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I-III and III-I are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together or they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions not disclosed as capable of use together. They have different modes of cleaning and different effects.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II or III, the search required for Group II is not required

for Groups I or III, and the search required for Group III is not required for Groups I or II, restriction for examination purposes, as indicated, is proper.

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

- a. Substrate\*
  - i. Textile
  - ii. Flexible structure
  - iii. Precision structure
  - iv. Delicate structure
  - v. Porous structure
- b. Organic solvent disclosed in claim 1
  - vi. Wherein  $x=1$
  - vii. Wherein  $x=0$
  - viii. Wherein  $y=1$
  - ix. Wherein  $y=0$
  - x. Wherein  $z=1$
  - xi. Wherein  $z=0$
  - xii.  $R'=C_jH_{j+1}$ 
    - (1) Wherein  $j=1$
    - (2) Wherein  $j=(13-3(1+0+0))$
    - (3) Wherein  $j=(13-3(0+1+0))$

(4) Wherein  $j=(13-3(0+0+1))$

(5) Wherein  $j=(13-3(1+1+0))$

(6) Wherein  $j=(13-3(0+1+1))$

(7) Wherein  $j=(13-3(1+0+1))$

(8) Wherein  $j=(13-3(1+1+1))$

c. Organic solvent disclosed in claim 2

xiii. Wherein  $x=1$

xiv. Wherein  $x=0$

xv. Wherein  $y=1$

xvi. Wherein  $y=0$

xvii. Wherein  $z=1$

xviii. Wherein  $z=0$

d.  $R''$

xix. Benzyl

xx. Phenyl

xxi. Partially fluorinated benzyl

xxii. Fully fluorinated benzyl

xxiii. Partially fluorinated phenyl

xxiv. Fully fluorinated phenyl

xxv.  $C_jH_{2j+1}$

(9) Wherein  $j=1$

(10) Wherein  $j=(13-3(1+0+0))$

(11) Wherein  $j=(13-3(0+1+0))$

(12) Wherein  $j=(13-3(0+0+1))$

(13) Wherein  $j=(13-3(1+1+0))$

(14) Wherein  $j=(13-3(0+1+1))$

(15) Wherein  $j=(13-3(1+0+1))$

(16) Wherein  $j=(13-3(1+1+1))$

(17)

xxvi. Wherein  $C_jH_aF_a$  and  $C_kH_rF_s$

(18) Wherein  $j$  is:

(a) Wherein  $j=1$

(b) Wherein  $j=(13-3(1+0+0))$

(c) Wherein  $j=(13-3(0+1+0))$

(d) Wherein  $j=(13-3(0+0+1))$

(e) Wherein  $j=(13-3(1+1+0))$

(f) Wherein  $j=(13-3(0+1+1))$

(g) Wherein  $j=(13-3(1+0+1))$

(h) Wherein  $j=(13-3(1+1+1))$

(19) Wherein  $a$  is:

(i) Wherein  $a=2(13-3(1+0+0))+1$

(j) Wherein  $a=2(13-3(1+1+0))+1$

(k) Wherein  $a=2(13-3(1+1+1))+1$

(l) Wherein  $a=2(13-3(1+0+0))+1$

- (m) Wherein  $a=2(13-3(1+1+0))+1$
- (n) Wherein  $a=2(13-3(1+1+1))+1$
- (o) Wherein  $a=2(13-3(1+0+0))-1$
- (p) Wherein  $a=2(13-3(1+1+0))-1$
- (q) Wherein  $a=2(13-3(1+1+1))-1$
- (r) Wherein  $a=2(13-3(1+0+0))-1$
- (s) Wherein  $a=2(13-3(1+1+0))-1$
- (t) Wherein  $a=2(13-3(1+1+1))-2$
- (u) Wherein  $a=(13-3(1+0+1))-2$
- (v) Wherein  $a=(13-3(1+1+1))-2$
- (w) Wherein  $a=2(13-3(1+1+1))-3$
- (x) Wherein  $a=(13-3(1+0+1))-3$
- (y) Wherein  $a=(13-3(1+1+1))-3$
- (z) Wherein  $a=2(13-3(1+1+1))-4$
- (aa) Wherein  $a=(13-3(1+0+1))-4$
- (bb) Wherein  $a=(13-3(1+1+1))-4$

(20) Wherein b is:

- (cc) Wherein  $b=2(13-3(1+0+0))+1$
- (dd) Wherein  $b=2(13-3(1+1+0))+1$
- (ee) Wherein  $b=2(13-3(1+1+1))+1$
- (ff) Wherein  $b=2(13-3(1+0+0))+1$

- (gg) Wherein  $b=2(13-3(1+1+0))+1$
- (hh) Wherein  $b=2(13-3(1+1+1))+1$
- (ii) Wherein  $b=2(13-3(1+0+0))-1$
- (jj) Wherein  $b=2(13-3(1+1+0))-1$
- (kk) Wherein  $b=2(13-3(1+1+1))-1$
- (ll) Wherein  $b=2(13-3(1+0+0))-1$
- (mm) Wherein  $b=2(13-3(1+1+0))-1$
- (nn) Wherein  $b=2(13-3(1+1+1))-2$
- (oo) Wherein  $b=(13-3(1+0+1))-2$
- (pp) Wherein  $b=(13-3(1+1+1))-2$
- (qq) Wherein  $b=2(13-3(1+1+1))-3$
- (rr) Wherein  $b=(13-3(1+0+1))-3$
- (ss) Wherein  $b=(13-3(1+1+1))-3$
- (tt) Wherein  $b=2(13-3(1+1+1))-4$
- (uu) Wherein  $b=(13-3(1+0+1))-4$
- (vv) Wherein  $b=(13-3(1+1+1))-4$

xxvii. Wherein R1 is:

- (21)  $C_0H_0F_1$
- (22)  $C_0H_1F_0$
- (23)  $C_1H_3F_0$
- (24)  $C_1H_2F_1$
- (25)  $C_1H_1F_2$

Art Unit: 1746

(26)  $\text{C}_1\text{H}_0\text{F}_3$ (27)  $\text{C}_2\text{H}_5\text{F}_0$ (28)  $\text{C}_2\text{H}_4\text{F}_1$ (29)  $\text{C}_2\text{H}_3\text{F}_2$ (30)  $\text{C}_2\text{H}_2\text{F}_3$ (31)  $\text{C}_2\text{H}_1\text{F}_4$ (32)  $\text{C}_2\text{H}_5\text{F}_5$ (33)  $\text{C}_2\text{H}_5\text{F}_0$ 

xxviii. Wherein R2 is:

(34)  $\text{C}_0\text{H}_0\text{F}_1$ (35)  $\text{C}_0\text{H}_1\text{F}_0$ (36)  $\text{C}_1\text{H}_3\text{F}_0$ (37)  $\text{C}_1\text{H}_2\text{F}_1$ (38)  $\text{C}_1\text{H}_1\text{F}_2$ (39)  $\text{C}_1\text{H}_0\text{F}_3$ (40)  $\text{C}_2\text{H}_5\text{F}_0$ (41)  $\text{C}_2\text{H}_4\text{F}_1$ (42)  $\text{C}_2\text{H}_3\text{F}_2$ (43)  $\text{C}_2\text{H}_2\text{F}_3$ (44)  $\text{C}_2\text{H}_1\text{F}_4$ (45)  $\text{C}_2\text{H}_5\text{F}_5$ (46)  $\text{C}_2\text{H}_5\text{F}_0$

xxix. Wherein R3 is:

(47)  $C_0H_0F_1$

(48)  $C_0H_1F_0$

(49)  $C_1H_3F_0$

(50)  $C_1H_2F_1$

(51)  $C_1H_1F_2$

(52)  $C_1H_0F_3$

(53)  $C_2H_5F_0$

(54)  $C_2H_4F_1$

(55)  $C_2H_3F_2$

(56)  $C_2H_2F_3$

(57)  $C_2H_1F_4$

(58)  $C_2H_5F_5$

(59)  $C_2H_5F_0$

xxx. Wherein R4 is:

(60)  $C_0H_0F_1$

(61)  $C_0H_1F_0$

(62)  $C_1H_3F_0$

(63)  $C_1H_2F_1$

(64)  $C_1H_1F_2$

(65)  $C_1H_0F_3$

(66)  $C_2H_5F_0$

Art Unit: 1746

(67)  $C_2H_4F_1$ (68)  $C_2H_3F_2$ (69)  $C_2H_2F_3$ (70)  $C_2H_1F_4$ (71)  $C_2H_5F_5$ (72)  $C_2H_5F_0$ 

xxxi. Wherein R5 is:

(73)  $C_0H_0F_1$ (74)  $C_0H_1F_0$ (75)  $C_1H_3F_0$ (76)  $C_1H_2F_1$ (77)  $C_1H_1F_2$ (78)  $C_1H_0F_3$ (79)  $C_2H_5F_0$ (80)  $C_2H_4F_1$ (81)  $C_2H_3F_2$ (82)  $C_2H_2F_3$ (83)  $C_2H_1F_4$ (84)  $C_2H_5F_5$ (85)  $C_2H_5F_0$ 

xxxii. Wherein R6 is:

(86)  $C_0H_0F_1$

Art Unit: 1746

- (87)  $C_0H_1F_0$
- (88)  $C_1H_3F_0$
- (89)  $C_1H_2F_1$
- (90)  $C_1H_1F_2$
- (91)  $C_1H_0F_3$
- (92)  $C_2H_5F_0$
- (93)  $C_2H_4F_1$
- (94)  $C_2H_3F_2$
- (95)  $C_2H_2F_3$
- (96)  $C_2H_1F_4$
- (97)  $C_2H_5F_5$
- (98)  $C_2H_5F_0$

xxxiii. Wherein R7 is:

- (99)  $C_0H_0F_1$
- (100)  $C_0H_1F_0$
- (101)  $C_1H_3F_0$
- (102)  $C_1H_2F_1$
- (103)  $C_1H_1F_2$
- (104)  $C_1H_0F_3$
- (105)  $C_2H_5F_0$
- (106)  $C_2H_4F_1$
- (107)  $C_2H_3F_2$

Art Unit: 1746

(108)  $\text{C}_2\text{H}_2\text{F}_3$ (109)  $\text{C}_2\text{H}_1\text{F}_4$ (110)  $\text{C}_2\text{H}_5\text{F}_5$ (111)  $\text{C}_2\text{H}_5\text{F}_0$ 

xxxiv. Wherein R8 is:

(112)  $\text{C}_0\text{H}_0\text{F}_1$ (113)  $\text{C}_0\text{H}_1\text{F}_0$ (114)  $\text{C}_1\text{H}_3\text{F}_0$ (115)  $\text{C}_1\text{H}_2\text{F}_1$ (116)  $\text{C}_1\text{H}_1\text{F}_2$ (117)  $\text{C}_1\text{H}_0\text{F}_3$ (118)  $\text{C}_2\text{H}_5\text{F}_0$ (119)  $\text{C}_2\text{H}_4\text{F}_1$ (120)  $\text{C}_2\text{H}_3\text{F}_2$ (121)  $\text{C}_2\text{H}_2\text{F}_3$ (122)  $\text{C}_2\text{H}_1\text{F}_4$ (123)  $\text{C}_2\text{H}_5\text{F}_5$ (124)  $\text{C}_2\text{H}_5\text{F}_0$ 

xxxv. Wherein R9 is:

(125)  $\text{C}_0\text{H}_0\text{F}_1$ (126)  $\text{C}_0\text{H}_1\text{F}_0$ (127)  $\text{C}_1\text{H}_3\text{F}_0$

(128)  $\text{C}_1\text{H}_2\text{F}_1$

(129)  $\text{C}_1\text{H}_1\text{F}_2$

(130)  $\text{C}_1\text{H}_0\text{F}_3$

(131)  $\text{C}_2\text{H}_5\text{F}_0$

(132)  $\text{C}_2\text{H}_4\text{F}_1$

(133)  $\text{C}_2\text{H}_3\text{F}_2$

(134)  $\text{C}_2\text{H}_2\text{F}_3$

(135)  $\text{C}_2\text{H}_1\text{F}_4$

(136)  $\text{C}_2\text{H}_5\text{F}_5$

(137)  $\text{C}_2\text{H}_5\text{F}_0$

xxxvi. Wherein R10 is:

(138)  $\text{C}_0\text{H}_0\text{F}_1$

(139)  $\text{C}_0\text{H}_1\text{F}_0$

(140)  $\text{C}_1\text{H}_3\text{F}_0$

(141)  $\text{C}_1\text{H}_2\text{F}_1$

(142)  $\text{C}_1\text{H}_1\text{F}_2$

(143)  $\text{C}_1\text{H}_0\text{F}_3$

(144)  $\text{C}_2\text{H}_5\text{F}_0$

(145)  $\text{C}_2\text{H}_4\text{F}_1$

(146)  $\text{C}_2\text{H}_3\text{F}_2$

(147)  $\text{C}_2\text{H}_2\text{F}_3$

(148)  $\text{C}_2\text{H}_1\text{F}_4$

(149)  $C_2H_5F_5$

(150)  $C_2H_5F_0$

xxxvii. Wherein R11 is:

(151)  $C_0H_0F_1$

(152)  $C_0H_1F_0$

(153)  $C_1H_3F_0$

(154)  $C_1H_2F_1$

(155)  $C_1H_1F_2$

(156)  $C_1H_0F_3$

(157)  $C_2H_5F_0$

(158)  $C_2H_4F_1$

(159)  $C_2H_3F_2$

(160)  $C_2H_2F_3$

(161)  $C_2H_1F_4$

(162)  $C_2H_5F_5$

(163)  $C_2H_5F_0$

xxxviii. Wherein R12 is:

(164)  $C_0H_0F_1$

(165)  $C_0H_1F_0$

(166)  $C_1H_3F_0$

(167)  $C_1H_2F_1$

(168)  $C_1H_1F_2$

Art Unit: 1746

(169)  $C_1H_0F_3$ (170)  $C_2H_5F_0$ (171)  $C_2H_4F_1$ (172)  $C_2H_3F_2$ (173)  $C_2H_2F_3$ (174)  $C_2H_1F_4$ (175)  $C_2H_5F_5$ (176)  $C_2H_5F_0$ xxxix. Wherein  $R'$ 

(177) O

(178) S

(179) Carbonyl

(180) Ester

xl. Wherein  $R'''$  and  $R^{IV}$  is :(181) Wherein  $j=1$ (182) Wherein  $j=(13-3(1+0+0))$ (183) Wherein  $j=(13-3(0+1+0))$ (184) Wherein  $j=(13-3(0+0+1))$ (185) Wherein  $j=(13-3(1+1+0))$ (186) Wherein  $j=(13-3(0+1+1))$ (187) Wherein  $j=(13-3(1+0+1))$ (188) Wherein  $j=(13-3(1+1+1))$

xli. Wherein R<sub>1-3</sub> are:

- (189) H H H
- (190) H H CH<sub>3</sub>
- (191) H CH<sub>3</sub> H
- (192) CH<sub>3</sub> H H
- (193) CH<sub>3</sub> CH<sub>3</sub> H
- (194) CH<sub>3</sub> H CH<sub>3</sub>
- (195) H CH<sub>3</sub>CH<sub>3</sub>
- (196) r

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Art Unit: 1746

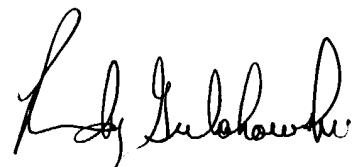
5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (571) 272-1310. The examiner can normally be reached on Monday-Friday 7:00-3:30.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions related to the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gentle E. Winter  
Examiner  
Art Unit 1746



RANDY GULAKOWSKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700